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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,507	11/07/2001	Mahesh Subramanian	10.0906	9661
22474	7590	12/14/2005	EXAMINER	
DOUGHERTY CLEMENTS 1901 ROXBOROUGH ROAD SUITE 300 CHARLOTTE, NC 28211			VU, THANH T	
			ART UNIT	PAPER NUMBER
			2174	

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/005,507	Applicant(s) SUBRAMANIAN ET AL.	
	Examiner Thanh T. Vu	Art Unit 2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-23 and 33-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19-23 and 33-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This communication is responsive to Amendment, filed 09/19/2005.

Claims 1-17, 19-23 and 33-36 are pending in this application. In the Amendment, claims 1-4, 6, 8, 9, 11, and 21 were amended. Claim 18 was canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 9-17, 19-23, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. ("Ueno", Pub. No.: US 2002/0024535), Brede et al. ("Brede", U.S. Pat. No. 6,603,822), and Horii (U.S. Pat. No. 6,496,209).

Per claim 1, Ueno teaches a method for generating and displaying a channel map for a network, the method comprising the steps of:

retrieving channel data for a plurality of nodes in the network (fig. 3; [0011]);

generating a graphical image of the channel map representing a first node and a second node of the plurality of nodes in the network from the retrieved channel data, the graphical image showing a relationship of a channel in the first node to a channel in the second node ([0011]; [0015]; [0189]); and

displaying the graphical image of the channel map (fig. 3; [0189]).

Ueno does not specifically teach wherein the channel data include information regarding bands and channels in the network, wherein the network utilizes a plurality of bands and each band has a plurality of channels, generating a graphical image of the channel map graphically illustrating at least one band and at least one channel of the at least one band, and the graphical image showing a relationship of a band and channel in the first node to a band and channel in the second node. However, Brede teaches the channel data include information regarding bands and channels in the network, wherein the network utilizes a plurality of bands and each band has a plurality of channels (col. 5, lines 23-31; col. 11, lines 50-65; col. 12, lines 1-14). Horii teaches generating a graphical image of the channel map graphically illustrating at least one band and at least one channel of the at least one band, and the graphical image showing a relationship of a band and channel in the first node to a band and channel in the second node (col. 2, lines 33-39; col. 6, lines 33-36; col. 7, lines 21-30, and lines 42). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Brede in the invention of Ueno in order to provide users monitoring of downstream transmission channel at a service unit for transmission errors and to provide a method for dynamically allocating bandwidth to a service unit in a telecommunications system. In addition, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the teaching of Horii in the invention of the modified Ueno in order to enable a user to easily recognize real-time change in the status by using change in the shape and the color of a plurality of nodes and change in the expression of the relationship among the nodes.

Per Claim 2, the modified Ueno teaches the method of claim 1, further comprising the step of:

determining nodes in the network and wherein the step of retrieving channel map data is performed for each node determined to be in the network (fig. 3; [0011]; [0015]).

Per claim 3, the modified Ueno teaches the method of claim 1, further comprising the step of:

receiving an input requesting information about a channel generating a second image of requested information, and displaying the second image with the generated image (fig. 6; [0013]; [0193]).

Per claim 4, the modified Ueno teaches the method of claim 3, wherein the step of generating comprises creating of a list of channel data and the step of displaying comprises creating a window over the graphical image of the channel map and showing the list in the window (fig. 6; [0209]).

Per claim 5, the modified Ueno teaches the method of claim 4, wherein the list of channel data includes also includes at least one of side, circuit pack type, role and access type (Fig. 7 and 8; [0213]; [0214]; [0307]; [0409]).

Per claim 6, the modified Ueno teaches the method of claim 3, wherein the step of generating comprises producing a pop- up menu of supported operations including one from a group of get additional information, generate reports or transition to other channel map images [0229]).

Per claim 7, the modified Ueno teaches the method of claim 1, further comprising the step of storing retrieved channel data for the plurality of nodes in storage at the element management system (fig. 2; [0181]).

Per claim 9, the modified Ueno teaches the method of claim 1, further comprising the steps of:

receiving an input requesting report, generating an image of the channel map in a printer file and sending the printer file to a printer (fig. 30 and 74; [0134]; [0382]).

Per claim 10, the modified Ueno teaches the method of claim 1, further comprising the steps of:

receiving an input requesting an export of a channel map, creating a file with the channel map data, and storing the created file (figs. 30 and 74; [0134]; [0382]).

Per claim 11, the modified Ueno teaches the method of claim 1, wherein the step of retrieving channel data comprises the steps of:

retrieving optical band channel assignments, retrieving sub-rate information, retrieving data on provisioned circuits, and retrieving data on sub rate circuits ([0028]; [0030]; [0179]-; [0181]).

Per claim 12, the modified Ueno teaches the method of claim 1, further comprising the step of updating the channel map data and displaying an updated version of the channel map ([0193]; [0409]).

Per claim 13, the modified Ueno teaches the method of claim 12, wherein the step of updating the channel map data and displaying an updated version of the channel map is responsive to one from the group of: user input, passage of time or an event being sent from an administrative complex of a node to the element management system ([0190]; [0193]; [0409]).

Per claim 14, the modified Ueno teaches the method of claim 1, wherein the graphical image of the channel map is a window having first, second and third columns, the first column

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provides labels for the bands and channels on a first direction to/from the first node, the third column provides labels for the bands and channels on a second direction to/from the second node, and the second column is positioned between the first and third columns and depicts channel and band allocation information (fig. 8; [0219]; [0220]; [0243]).

Per claim 15, the modified Ueno teaches the method of claim 14, wherein the second column has a plurality of cells with left and right portions for displaying west and east side information for the node and lines in the cells correspond to connections made by the node, and wherein rows in the first and third columns are labeled with a unique channel identifier that includes a row and channel designation (fig. 13; [0243]; [0252]; [0420]).

Per claim 16, the modified Ueno teaches the method of claim 15, wherein the rows are grouped in bands and each band is marked by visually distinct delineation (fig. 138; [0216]; [0036]).

Per claim 17, the modified Ueno teaches the method of claim 15, wherein the graphical image of the channel map further comprises a legend positioned proximate the first, second and third columns in a split pane, the legend displays icons that may be placed in the cells of the second column and associated text descriptions (fig. 15; [0036]; [0553]).

Per claim 19, Ueno teaches the method of claim 15, wherein the icons in the legend include one from the group of:

icons indicating whether the node is performing an add/drop function and whether a multiplexer exists ([0189]; [0179]);

icons indicating administrative state, icons representing alarm states, icons representing regeneration or pass through by a node, and icons representing error conditions (fig. 3; [0193]; [0553]-[0556]).

Per claim 20, Ueno teaches the method of claim 15, wherein lines in the cells are used to represent circuits, and line with a first visual format represents a non-provisioned circuit, and a line with a second visual format represents a provisioned circuit ([0011]; [0275]; [0532]; [0553]).

Per claim 21, Ueno teaches the method of claim 20, wherein a color of a line is used to indicate the status of the circuit, and wherein the line is colored a first color to indicate a critical problem, a second color to indicate a major problem, a third color to indicate a minor problem, and a fourth color to indicate no alarm conditions ([0553]-[0556]).

Claims 22 and 23 are rejected under the same rationale as claims 14 and 15 respectively.

Per claim 33, Ueno and Brede teach at least of one the plurality of channels is an optical signaling channel carrying administrative information (Ueno, [0004], [0011]; Brede, col. 2, lines 30-36; col. 13, line 62 - col. 14, line 17).

Per claim 34, Brede teaches the method of claim 33, wherein the optical signaling channels is carried on a wavelength channel out of band for a payload wavelength channels (col. 46, lines 49-67; col. 57, lines 15-34).

Per claim 35, Brede teaches the method of claim 33, wherein the optical signaling channel occupies one or more divisions of time division multiplexed signal (col. 67, lines 15-35; col. 68, lines 22-30, and lines 51-59).

Per claim 36, Brede teaches the method of claim 33, wherein the optical signaling channel is modulated onto payload signal (col. 6, lines 5-18).

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueno et al. ("Ueno", Pub. No.: US 2002/0024535), Brede et al. ("Brede", U.S. Pat. No. 6,603,822), Horii (U.S. Pat. No. 6,496,209), and Langfahl Jr (U.S. Pat. No. 6,031,528).

Per claim 8, the modified Ueno teaches the method of claim 1, further comprising the steps of receiving an input requesting a report and displaying the generated image in the window (fig. 30; [0314]; [0382]), but does not teach generating an image of the channel map in HTML format and opening a browser window. However, Langfahl, Jr teaches generating an image of the channel map in HTML format and opening a browser window (fig. 5; col. 5, lines 33-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the image of network map in html page of a web browser as taught by Langfahl Jr in the invention of Ueno because it provides users remote access to the information over the WWW.

Response to Arguments

Applicant's arguments with respect to the amendment have been considered but are moot in view of the new ground(s) of rejection.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh T. Vu whose telephone number is (571) 272-4073. The examiner can normally be reached on Mon-Thur and every other Fri 8:30 AM - 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L. Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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